



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,913	07/03/2003	Alastair M. Reed	P0851	4658
23735	7590	03/22/2006		
DIGIMARC CORPORATION 9405 SW GEMINI DRIVE BEAVERTON, OR 97008			EXAMINER DESIRE, GREGORY M	
			ART UNIT 2624	PAPER NUMBER

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/613,913	Applicant(s) REED ET AL.	
	Examiner Gregory M. Desire	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to communication filed 1/4/06.

Response to Amendment

2. Applicant's argument in view of 35 USC 103 has been considered. Examiner maintained the rejection filed 9/9/05.

Response to Arguments

3. Applicant argues (remarks page 4 lines 18-21) passages of Warnock do not determine color characteristics associated with a group of image samples, and then based on that characteristic, determining the group of image samples which of the plurality of color channels should receive encoding. This argument is not persuasive. It is the position of the examiner Warnock does determine color characteristics associated with a group of image samples, and then based on that characteristic, determining the group of image samples which of the plurality of color channels should receive encoding (note Liao col. 3 lines 47-49 and 50, form input image color characteristics are determined) Also, Liao is relied upon to determine color characteristic for group of image samples. Warnock is secondary teaching to plurality of color channel should receive encoding.

4. Applicant argues (remarks page 5 lines 17-20) the Takada is concerned with how to best display flaws in materials, and does not seem concerned with the colors of the

Art Unit: 2627

materials. The examiner disagrees because the examiner believes Takada is concerned with color (note col. 1 lines 38-39). The magnitude of the signal is obtained a black line is displayed. The existence or non-existence of black lines shows a concern with color.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao et al (6,788,801) in view of Warnock (6,125,200).

Regarding claim 11 Liao discloses,

Determining a color characteristic for a group of image samples (note col. 3 lines 47-49 and 50, input image including pixels (group of image samples), the input image being a color image has color characteristics that are determined);

Transforming from the group of image samples at least one determined color channel that should receive encoding into a transform domain (note col. 3 lines 51-53 and 55-56, original image which includes pixels group of image samples receive into wavelet transform the transform domain); and

Altering transform domain coefficient of the at least one determined color channel to encode the digital watermark (note fig. 2a, block 215 in connection with col. 3 lines 59-61, wavelet modulator modifies transform domain coefficient).

However, Liao does not disclose determining which plurality of color channels should receive encoding. Warnock discloses selecting color channel from grey scale space (note col. 3 lines 8-10). Liao and Warnock are combinable because they are from the same field of endeavor color space conversion. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to select a color channel for encoding in the system of Liao as evidenced by Warnock. The suggestion/motivation for doing so would have been identifying text from color space (note col. 2 lines 62-63) for better reproduction of documents (note col. 2 lines 9-10). Therefore, it would have been obvious to combine Liao with Warnock to obtain the invention as specified in claim 11.

Regarding method claim 12 Liao and Warnock discloses,

Transforming the altered color channel into a spatial domain (note Liao fig. 2a block 220, inverse wavelet transform performs, transforming altered color channel into a spatial domain).

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liao and Warnock in view of Wang (6,252,971).

Liao and Warnock do not clearly disclose identifying which of the color channels will best hide watermark. Liao and Warnock disclose identifying which of the color channels will best hide watermark (note col. 4 lines 58-60, yellow best hide digital watermarks). Liao, Warnock and Wang are combinable because they are from the same field of endeavor. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include channel hides digital watermark in the system of Liao and Warnock as evidence by Wang. The suggestion/motivation for doing so would have been producing more freedom in screen design. Therefore, it would have been obvious to combine Liao, Warnock with Wang to obtain the invention as specified in claim 13.

7. Claims 14-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al (5,818,032) in view of Takada et al (6,77,931).

Regarding method claim 14 Sun discloses,

Providing a set of encoding values for an image sample (note fig 1., binary data examiner interprets as encoding values of the rendered image (image sample)).

Determining a color characteristic (fig. 1 categorizes yellow) for the image sample (rendered image) based on its color value (provides pixel value examiner interprets as color value)

However, Sun does not disclose selectively scaling in the image sample based on the color characteristic. Takada discloses from selected color changing (scaling) the color based on depth of color (color characteristic) (note col. 2 lines 32-40).

Art Unit: 2627

Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to included selective scaling image sample based on color characteristic.

Improved visibility would have been highly desirable feature in the color masking art due it luminance functions and Takada recognizes that improved visibility would be expected when selectively scaling image samples based on the color characteristic of Takada is included in Sun.

Regarding method claim 15 Sun and Takada discloses,

Wherein scaling effects a change in luminance (note Sun, fig. 2)

Regarding method claim 16 Sun and Takada discloses,

Wherein the scaling comprises a scale to black (note Takada fig. 5, yellow goes to black).

Regarding method claim 17 Sun and Takada discloses,

Wherein the scaling comprises a scale to white (note Takada fig. 5, yellow goes to black to white).

Regarding method claim 18 Sun and Takada discloses,

Wherein the color characteristic comprises yellow content (note Sun fig. 1, 16, yellow value).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

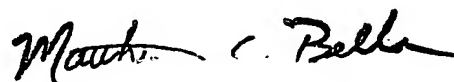
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory M. Desire whose telephone number is (571) 272-7449. The examiner can normally be reached on M-F (6:30-3:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory M. Desire
Examiner
Art Unit 2627

G.D.
March 17, 2006



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600